Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HARUO URAI

Appeal No. 2000-1675
Application No. 08/855,279

HEARD: APRIL 10, 2002

Before RUGGIERO, DIXON, and SAADAT, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-10, which are all of the claims pending in the present application.

The claimed invention relates to a magnetoresistive (MR) sensing element and a magnetic head using the MR sensing element. According to Appellant (specification, pages 2 and 3), conventional MR sensing elements having a rectangularly-shaped sensing pattern have non-linear response characteristics of resistance changes to corresponding magnetic field changes due to the fact that the demagnetizing field within the sensing pattern

is not constant with respect to the direction of magnetization. In the present claimed invention, a MR sensing element with a circular-shaped sensing pattern is utilized which Appellant indicates (specification, page 4) results in a demagnetizing field within the sensing pattern that is substantially constant with respect to the direction of magnetization, thereby achieving a linear response characteristic of resistance changes to magnetic field changes.

Claim 1 is illustrative of the invention and reads as follows:

1. A magnetoresistive sensing element comprising:

a sensing pattern consisting of a magnetoresistive layer whose resistance changes in accordance with a direction of magnetization; and

an electrode layer for applying a sense current to said sensing pattern, wherein

said sensing pattern is formed to be of substantially circular shape.

The Examiner cites the following prior art in the Answer:

Hamakawa et al. (Hamakawa)	4,814,921	Mar. 21, 1989
Fontana et al. (Fontana)	5,528,440	Jun. 18, 1996 (filed Jul. 26, 1994)
Logue[1]	5,574,367	Nov. 12, 1996 (filed Jan. 27, 1994)

[1] Although mentioned at page 8 of the Answer, the Logue reference is not relied on by the Examiner in any of the rejections before us on appeal.

Dovek et al. (Dovek)	5,650,887	Jul. 22, 1997 (filed Feb. 26, 1996)
George	5,669,133	Sep. 23, 1997 (filed Nov. 28, 1995)

Claims 1-10 stand finally rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the Examiner offers Dovek alone with respect to claims 1-4, Fontana alone with respect to claims 8 and 9, Dovek in view of George with respect to claims 5-7, and Hamakawa in view of Dovek with respect to claim 10.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Briefs[2] and Answer for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner, and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments

[2] The Appeal Brief (revised) was filed September 8, 1999 (Paper No. 16). In response to the Examiner's Answer dated January 6, 2000 (Paper No. 17), a Reply Brief was filed March 6, 2000 (Paper No. 19), which was acknowledged and entered by the Examiner in the communication dated March 17, 2000 (Paper No. 20).

set forth in the Briefs along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-10. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073-74, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion, or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825

(1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to claim 1, the sole independent claim in the case, the Examiner, as the basis for the obviousness rejection, proposes to modify the magnetoresistive sensing element disclosure of Dovek. According to the Examiner (Answer, page 4), Dovek discloses the claimed invention except for the formation of a sensing pattern with a substantially circular shape. Nevertheless, to address this deficiency, the Examiner asserts the obviousness to the skilled artisan of modifying the existing sensing pattern of Dovek to form a sensing pattern with a substantially circular shape " . . . in order to improve the sensing characteristics of the sensing element." (Id.)

In response, Appellant asserts several arguments in support of the position that the Examiner has not established proper motivation for the proposed modification of the applied

references so as to set forth a prima facie case of obviousness. In particular, Appellant contends (Brief, pages 3 and 4) that, although the Examiner has recognized that none of the applied prior art references disclose a MR sensing element with a circularly shaped sensing pattern as claimed, no supporting evidence has been provided by the Examiner for the proposed modifications of the prior art to arrive at the claimed invention.

After careful review of the applied prior art in light of the arguments of record, we are in agreement with Appellant's position as stated in the Briefs. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992). As to the Examiner's suggestion that the skilled artisan would have been motivated to modify the sensing patterns of the applied prior art to produce a circular sensing pattern, we find no evidentiary support in the references relied upon, outside of Appellant's own disclosure, for such an assertion. The Examiner's conclusory statements that the skilled artisan would know that making the suggested change in the shape of the

magnetoresistive element sensing pattern would improve the sensing characteristics does not adequately address the issue of motivation to modify the applied prior art references. This question of motivation is material to patentability, and can not be resolved on subjective belief and unknown authority. The Examiner must not only make requisite findings, based on the evidence of record, but must also explain the reasoning by which the findings are deemed to support the conclusion of obviousness. See In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002). We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by a teaching in a prior art reference, common knowledge or capable of unquestionable demonstration. Our reviewing court requires this evidence in order to establish a prima facie case. In re Knapp-Monarch Co., 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961); In re Cofer, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966).

In view of the above discussion, since the Examiner has not established a prima facie case of obviousness, the 35 U.S.C. § 103 rejection of independent claim 1, as well as claims 2-10 dependent thereon, is not sustained.

We note that the Examiner in the "***Response to Argument***" portion at page 9 of the Answer, points to Japanese Patent

Publications 8-203032 and 4-19809, cited by Appellant in an Information Disclosure Statement filed August 21, 1998, Paper No. 8, as evidence of the existence of differently shaped sensing patterns in magnetoresistive sensing elements. To whatever extent these references may be applicable to the instant claimed invention, we will not consider them because they are not part of the statement of the rejection and may not be properly relied upon. "Where a reference is relied on to support a rejection, whether or not in a 'minor capacity,' there would appear to be no excuse for not positively including the reference in the statement of the rejection." In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970). See also Ex parte Raske, 28 USPQ2d 1304, 1305 (Bd. Pat. App. & Int. 1993).

If the Examiner was of the opinion that these references had sufficient bearing on the issues on appeal, the Examiner was under a duty to properly formulate a rejection incorporating these references. The Examiner should be aware of the implications of discussing the relevance of prior art not relied upon to reject a claim. In accordance with the principles articulated in In re Portola Packaging, Inc., 110 F.3d 786, 790, 42 USPQ2d 1295, 1299 (Fed. Cir. 1997), the PTO will not order or conduct a reexamination in any application in which the relevance

of prior art not relied upon to reject a claim was discussed on the record with respect to the patentability of any claim. (See Manual of Patenting Examining Procedure (MPEP) § 2242).

REMAND TO THE EXAMINER

In view of the Examiner's comments at page 9 of the Answer, this case is being remanded to the Examiner to consider whether any of the documents cited by Appellant in the Information Disclosure Statement filed August 21, 1998, Paper No. 8, warrant reopening of prosecution in this application. Particular consideration should be given to JP 4-19809 which in the English language Abstract, refers to a magnetoresistive element with a " . . . circular annular shape." Since the limited disclosure in the English language Abstract of these publications make a meaningful consideration of the pertinence of the publications indeterminate, the Examiner is required to obtain a full translation of these publications which will be placed into the record. In the application of prior art references against the claims as a result of any resumption of prosecution of this application before the Examiner, the Examiner's statement of rejection is required to include references to the full

disclosure of the applied prior art. Due process considerations require that Appellant be given an opportunity to respond to any changes in the record.

CONCLUSION

The decision of the Examiner to reject claims 1-10 under 35 U.S.C. § 103(a) is reversed, and the application is remanded to the Examiner for further consideration.

REVERSED AND REMANDED

JOSEPH F. RUGGIERO Administrative Patent Judge	)	
JOSEPH L. DIXON Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
MAHSHID D. SAADAT Administrative Patent Judge	)	

JFR:hh

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